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Acquisition

AIRCRAFT STRUCTURAL INTEGRITY

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The Air Force must minimize the cost of later modifications or repairs by finding and fixing structural deficiencies as early as possible in the life cycle of its aircraft and maintaining structural integrity afterward. Aircraft Structural Integrity Programs (ASIPs) developed for each aircraft weapon system fulfill these functions while preventing loss of mission capability and keeping crew members safe. This directive establishes policy and defines responsibilities for implementing ASIPs.

SUMMARY OF REVISIONS

This revision is written for consistency with the requirements of DoD Directive 5000.1, *Defense Acquisition, March 15, 1996*, and DoD Regulation 5000.2, *Mandatory Procedures for Major Defense Acquisition Programs (MDAPs) and Major Automated Information System (MAIS) Acquisition Programs, March 15, 1996*. In paragraph 1 “for each aircraft” is replaced by “for each aircraft weapon system”. In paragraph 2 the requirement to “establish testing for structural deficiencies” is replaced with the requirement to “establish controls for the purpose of eliminating structural deficiencies” and for monitoring “those controls to ensure that they are effective.” In paragraph 3 the requirement to “establish an inspection and repair/replace schedule” is changed to a requirement to establish appropriate controls to ensure that the integrity of structural components is maintained and to monitor those controls to ensure that they are effective. New acquisition phase terminology is introduced in paragraph 3, i.e., “operations and support phase” is replaced with “Production, Fielding/Deployment and Operational Support phases”. In paragraph 4.4 “inspecting and repairing/replacing structural components” is replaced by “controls” identified by the ASIPs. In paragraph 4.5 procedural details related to preparation, coordination, maintenance and distribution of ASIP master plans are deleted as they are more appropriate for inclusion in lower level publications. In paragraph 4.6 the responsibility for budgeting and funding ASIP activities is changed from the system program director to the lead command. Paragraph 5 is reworded to clarify that AFI 63-1001 implements this directive. In paragraph A1.1 the metric for measuring policy compliance is replaced by a new metric based on the number of Class A and B accidents occurring due to structural problems. A vertical bar (/) indicates revision from the previous edition.

1. The Air Force will establish an Aircraft Structural Integrity Program (ASIP) for each aircraft weapon system it is acquiring or using.
 - 1.1. ASIPs for all piloted aircraft (current operational and test aircraft, aircraft in development, prototypes, and full-scale remotely piloted vehicles (RPV) which have provisions for safety pilots) will cover structural safety and durability.
 - 1.2. ASIPs for unpiloted vehicles and full-scale RPVs without provisions for safety pilots will apply only to the extent required to perform the mission.
2. Each ASIP will establish controls for the purpose of eliminating structural deficiencies during the engineering and manufacturing development phase and monitor those controls to ensure that they are effective.
3. Each program will establish appropriate controls during the Production, Fielding/Deployment, and Operational Support phases to ensure that integrity of structural components is maintained and monitor those controls to ensure that they are effective.
4. This directive establishes the following authorities and responsibilities:
 - 4.1. The Office of the Secretary of the Air Force and HQ USAF make policy, advocate resources, and oversee ASIPs throughout the Air Force.
 - 4.2. The Assistant Secretary of the Air Force for Acquisition (SAF/AQ) approves ASIPs.
 - 4.3. Program Executive Officers (PEOs) and Designated Acquisition Commanders (DACs) establish ASIPs, identify requirements, and carry out their ASIPs to comply with this directive.
 - 4.4. Commanders in operating commands support systems that gather ASIP operational usage data. They also support controls identified by the ASIPs.
 - 4.5. Program managers shall ensure that an appropriate ASIP is developed and documented for each aircraft weapon system the Air Force is acquiring or using. In addition, they shall monitor execution of the plan to ensure its effectiveness.
 - 4.6. The lead command for the aircraft will budget and fund program activities according to AFRD 10-9, *Lead Operating Command Weapon Systems Management*, and AFI 65-601, Volume 1, *Budget Guidance and Procedures*.
5. This directive relates to instructions in AFI 63-1001, *Aircraft Structural Integrity Program*, which implements this directive.
6. See **Attachment 1** for measuring compliance with this directive.

ARTHUR L. MONEY
Assistant Secretary of the Air Force for Acquisition

Attachment 1

MEASURING AND DISPLAYING COMPLIANCE WITH POLICY

A1.1. Compliance with this policy directive will be assessed based on the number of Class A and B accidents due to structural problems. This is a valid indication of the health of any system. It can be derived from data maintained by the Air Force Safety Center. Other factors that should be considered include the age of the fleet, structural repair costs and frequency, operational readiness, etc.

Figure A1.1. Class A and B Accidents Due to Structural Problems by Fiscal Year.

